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RUST IN WHEAT.

The extraordinary thriftiness of the wheat crop, will be likely to expose it to rust, should there be weather favorable for its production, shortly before the grain ripens. In this event, we are aware of but two measures which can be made use of to save the crop. One is, to cut the wheat as soon as the rust has struck it badly, If the berry is then so far advanced as to be between the milky and doughy state, it will yet fill out, so that but little loss will be sustained. The other method has never, so far as we are aware, been tried in this country, but is said to have been adopted in England with complete success. The following experiment on this point, made by an English clergyman, is published in the Farmers' Encyclopædia:

"It gives me great pleasure to have it in my power to furnish you with some information respecting a use of salt, which, perhaps, you are not aware of. I, and a neighbor of mine, have applied it as a remedy for the mildew in wheat, with the most unequivocal success. I first made the discovery 2 years ago; my experiments at that time were upon a very limited scale; they have this year extended over only an acre and a half, but under circumstances that leave not a shadow of doubt of salt being an absolute specific for mildew, in the most aggravated stages of the disorder. Of this I will state to you a convincing proof. In the year 1818, I found a few ears of wheat, which I conceived to be a new and improved variety; from these ears I raised as much wheat as last year sufficed to plant a piece of land 4 feet wide and 100 yards in length; the produce I had promised to Mr Coke; and, to augment that produce, I had the ground, previously to planting, highly manured; and as soon as the wheat came up, I gave it a good dressing with soot, and the wheat grew as rank as that sometimes observed upon a dunghill. The mildew made its appearance on this particular part of my field, while the straw was quite green, and the grain in a milky state; notwithstanding the danger that might be apprehended to the wheat itself, from its being thus succulent, I ventured to give it a dressing with salt and water; and as a heavy shower of rain fell a few hours afterwards, the dressing was repeated the next morning. The proportion of salt to the water, was 1 pound to a gallon, and applied with a plasterer's brush, the operator bearing a pail of the mixture in one hand, and the brush in the other, making his casts as when sowing grain, or else with a common watering pot, which, being swung with great force, throws the solution a considerable distance. Two men will go over near four acres a day—the one to spread, the other to supply the mixture. The result was, that the mildew was completely subdued, and the wheat went forward to maturity; and although the sample was not so bold as it might have been, it was sound and marketable. In other parts of the field, where the mildew showed itself, not under the aggravated circumstances described above, but, as it usually appears, the wheat was not in the least injured by it after the salt and water was applied: it was, indeed, as fine a sample as could be grown. Both mine and my neighbor's wheat were examined by many practical farmers, who are so decidedly convinced of the efficacy of my remedy, that they intend never to be without a reserve of salt ready to meet the enemy the moment he appears.

The effect of the salt upon the mildew, to those who do not consider the manner of its operation, is truly astonishing; I believe it to be *instant death to the fungus;* this, however, is certain, in less than 48 hours the straw nearly recovers its original color and brightness. The certainty and celerity of its operation I account for thus: the mildew, it is now well ascertained, is a parasitical plant of the fungus tribe, the principal constituent of which tribe is water. When salt, therefore, is applied to them, the aqueous particles are immediately absorbed, and their vitality destroyed. The action of salt upon mushrooms, as in making mushroom catsup, confirms this theory."

The Compiler adds: "I can afford decided testimony to the efficacy of the cure recommended by Mr Cartwright; but I would add these precautions: The safest quantity of salt per gallon of water, is 8 ounces, and then the application may be rendered more effectual by frequent repetition, without any danger of injury to the plants. If the application is not made during a cloudy day, it is best to defer it until the evening."—*Michigan Far.*

[Where wheat is sown broadcast, as we believe it universally is in this country, we do not see how the above named application could well be made to a field. If it could be depended upon to save a crop from destruction by mildew, in that case the trampling down of the wheat by the operators might be of little consequence. Were the salt water known to be so efficacious as above represented, it might be well in sowing to leave intervals for its convenient application.]

MILDEW IN THE GRAPE.

The blight, or mildew, is the operation of *fungi*, and the cause of the fungi is a *surplus of carbonic acid gas*, which gas would not exist as such, were there a sufficient supply of potash in the soil.

The grape-vine needs a large quantity of potash. Dr. Lee, a scientific gentleman of New York, says, that "a sugar-maple, a grape-vine, an apple tree, and a potato plant, need a soil that abounds in potash." In the appendix of Liebig's great work on Agricultural Chemistry, second American edition, by J. W. Webster, you will find that while speaking of the mode of manuring grape-vines, it is said: "Under ordinary circumstances, a manure containing potash must be used, otherwise the fertility of a soil will decrease. This is done in all wine countries." Again: "One thousand parts of the pruned branches contain fiftysix to sixty parts of carbonate, or thirtyeight to forty parts of pure potash."

We may now easily account for the fact mentioned by your correspondent, that "old vines are much more subject to mildew than young." They have exhausted the potash from the soil, and when their leaves absorb carbonic acid, the plant has no potash with which to form a healthy salt by union with it, and the diseased plant invites the fungi.

A humid summer is favorable for the generation of carbonic acid, and hence the reason why "T." found his young vines attacked during such a season. "T." is correct when he says, "the soap-suds is always beneficial, and can be used freely." The reason is, soap-suds contain potash. I should recommend very strongly the use of wood-ashes about grape-vines, particularly in "cold graperies," the vital power of the plant is not so strong, and consequently it has not the ability to expel the cause of the disease.—*Chemico, in Farmers' Cabinet.*

[The above theory of the *cause* of fungi, and the remedy for its mischief, is highly important, if true. What do our chemical friends think of it? The same writer maintains that the potato disease, like the mildew in the grape, is owing to an excess of carbonic acid gas and a deficiency of potash. Now, if any one can cite a case where the potato disease has occurred on land that had been *liberally dressed with wood-ashes*, the theory of "Chemico," we suppose, must be incorrect—for the ashes would supply the potash, which is, in his view, the one thing needful.]

CURRANT BUSHES.

Mr Editor—Having noticed that currant bushes may as well be made trees as shrubs, I conclude to tell you how I have seen it done. In the spring of 1831, my father commenced a garden, and among other things, set cuttings for currant bushes. I determined to make an experiment on one of these cuttings, and as soon as it grew, I pinched off all the leaves, except the top tuft, which I left to grow. The cutting was about 14 inches long, and during the summer, the sprout from the top of this grew perhaps 10 inches. The next spring I pinched off all the leaves to about half way up the first year's growth, so as to leave the lowest limbs about two feet from the ground. It branched well, and became a handsome little dwarf tree. When it came to bear fruit, it was more productive than any other bush in the garden, and the fruit larger. It was less infested with spiders and other insects; hens could not peck off the fruit, and grass and weeds were more easily kept from about the roots, and it was an ornament instead of a blemish. Now, I would propose that currant cuttings be set in rows about 4 1-2 or 5 feet apart each way, (let them be long and straight ones,) and trained into trees.—*Corr. Mich. Far.*

Cure for Diarrhœa.—A certain cure for this complaint is found in rice water. Boil the rice, take the water, make it palatable with salt, and drink it copiously while warm. We never knew this to fail.—*Cult.*

[As this recipe is regularly republished every year, and its efficacy certified by some one, we presume it is no humbug.]

It is better to *do* well than to *talk* well.—*Ital.*

For the N. E. Farmer.

THE POTATO DISEASE.

Mr J. Breck—I beg to enclose a translation of the greatest part of a paper read before the Industrial Society *(Societe Industrielle)* of Muhlhausen, the great seat of the cotton manufactures of France. If you insert this, I believe the files of the New England Farmer will contain all that is worth knowing on the subject of the potato disease, up to the present day. The observations and the plates accord *exactly* with what I observed and published in the autumn of 1844, and have led to somewhat the same results as to the duration of the disease, and the remedy for it. The plate with figures is at your service, if you wish to give one or two wood cuts. Yours, truly,

J. E. TESCHEMACHER.

Boston, June 9th, 1846.

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The following notice of the malady of potatoes, by Dr. Muhlenbeck, was read at the meeting of the *Societe Industrielle*, at Muhlhausen, 29th October, 1845:

My friend, Mr Leo Lesquereux, stated to me, that in passing through Lisle, he had examined diseased tubers of the potato without finding any fungus. Some days afterwards, he informed me that the disease had appeared at Valde Travers, and that on a careful examination, he had found the Botrytis (fungus) of Morren.

My attention thus called to the subject, I soon discovered some potatoes attacked. I communicated the fact to the President of the Industrial Society, who proposed to form a commission composed of the committees on chemistry and natural history, to watch the progress of this disease, and if requisite, to inform agriculturists of the evil which threatened them, and of the means of guarding against it. * * * * *

Messrs. Morren, Montagne, Lesquereux and Payen, admit the existence of a fungus, which they have placed in the order *Mucedinea*. Mr Morren, Professor of Agriculture at Liege, has described this fungus in his excellent memoir on the potato disease, and has given it the name of *Botrytis solani*. Mr Montagne, a learned muscologist of Paris, has called it *Botrytis infestans*. Mr Decaisne, in studying the diseased tubers, could not find any fungus.

In examining the diseased leaves, I was surprised not to find any of the *Mucedinea*, but a fungus of the order *Mucorinea*. To assure myself of this fact, I hastened to indicate it to Mr Ed. Hofer, that he might also study it with his excellent microscope of Oberhausser. Drs. Bauer and Weber were kind enough also to accompany us to Morscheviller. On reaching the potato fields, we found one with white potatoes, of which nearly half the crop was affected, while a field of reds adjoining, as yet offered but a few traces of the disease.

Mr Hofer was kind enough to examine the fungus in our presence, with his microscope, and to draw it with the camera lucida, magnified to No. 350. Mr Hofer then took some sporules from the leaves, and sowed them on a tuber quite sound in appearance, and placed the tuber on a wet cloth; but as at the end of 8 days there was no change, he took the cloth away: two days afterwards, a little efflorescence appeared on the exact spot where he had sowed the sporules—and, 15 days after the sowing, a fungus, perfectly identical with that on the leaves, appeared on the tuber. I examined it with Mr Hofer, who was kind enough to make a drawing. *(Fig. 1.)*

After four weeks of observations, I can present the following facts:

In examining a potato field still green, some of the leaves have a silvery appearance underneath, which disappears in one or two days, and is followed by the black spot; this spot soon extends to all the leaves; the stem then takes a yellow color, and at this period of the disease, on taking up a plant, one or more of the tubers has a spot rather darker than the rest of the skin. In cutting at this place, a light brown spot is discovered. This tuber exposed to humidity, soon rots, exhaling the fetid odor of decayed fungus. If kept in a dry place, the putrefaction proceeds very slowly, and in both cases, a *mycelium* forms on the eyes of the potato, which passes rapidly to the complete form of the fungus on the leaves.

In examining with the microscope the brown spots of a tuber in which the disease is commencing, there is yet no change in the cellular tissue, which contains the same quantity of starch as the sound parts. As the disease proceeds, the cells change their form, grow longer, and become only filaments crossing each other, without any trace of starch: this is observed in the variety which become watery and hollow without putrefying.

In examining a tuber which has just commenced putrefying, the cells are found deformed, and by degrees they are absorbed: the starch, also, changes its form; the grains from being oval, diminish in size, become round, and finally disappear amongst an infinite number of animalculæ and of granules, of the size of the sporidia of the fungus. Afterwards, the animalculæ are succeeded by larvæ of insects, and the whole becomes a soft mass.

The mould (fungus) which comes on the leaves, is the same species as that on the tuber, but the leaves not being so full of juice, it does not there attain a greater height than half a millimetre—[a millimetre is .0371 of an inch]—while that in the potato grows double that size, and in compact tufts, generally on the eye. It is easy to grow that on the leaf of the same size, by placing the upper part of the leaf on water in a dark place.

The microscopic examination shows that this fungus is formed of branches, always bifurcated, (forked) which contain a viscid juice, in which granules float. At the extremity of each branch there is a little swelling, which grows into a translucent vesicule, (little bladder.) By degrees, the granules of the stem pass into the bladders, which grow larger as they fill, become pointed, and fall off at maturity, with a small portion of the branch attached. In this state, these sporules (bladders) are

1-100th of a millimetre broad, 2-100ths do. long, and the sporidia which they contain, are round, and their diameter is from 1-1000 to 3-1000th part of a millimetre.

From these observations, it is clear that this fungus is not one of the *Mucidinea*, and of course not a *Botrytis*, as Messrs. Morren and Montagne have announced; but one of the *Mucorinea*. It is also an undescribed species which takes its place next to Mucor, and to which I give the name *Prichardia*, which I characterize as follows:

Peridium, oval oblong, pointed; subtrigonal in its dry state, bursting with difficulty, growing at the summit of bifurcated branches, and containing extremely small sporidia.

It grows on the under side of the leaves of the potato, and on the tubers exposed to the atmosphere.

I am persuaded that this fungus alone produces the potato disease; therefore I call the disease *Prichardine*, to distinguish it from the dry gangrene, described by M. Martius, and which, according to him, owes its existence to the *Fusisporium solani*; this, I therefore shall call, for the same reason, *Fusisporine*.

The potato once infected, loses its vital principle, and drying alone can prevent its decaying.

Having found the cause of the disease in the existence of this fungus, it is, unfortunately, impossible to deny that like the rust and the smut, it will remain permanent amongst us: we should, therefore, endeavor to destroy the germs of it as soon as possible. For this purpose, I propose, with Mr Morren, to dip the sets in ley before planting, and to powder the stems with lime as soon as they are just above ground. The cultivator should also burn the tops, as well as all diseased parts, and separate the sound from the diseased tubers before putting them in the cellar, for, as the fungus vegetates on the potato, the disease is propagated after harvesting. Besides, the infected tubers rot quickly, as they ferment; therefore, if put in heaps, it is quickly communicated to the sound ones. It is necessary, then, that they should be well dried, and placed in *light* and airy places; for the fungus being hypophyllous, it is more easily propagated in the dark. In putting them into the cellar after drying, it is well to powder them over with quick lime, to destroy the sporules.

PREPARED MANURES AND THEIR EFFECTS ON CROPS.

The substance of the following remarks, which we copy from the American Agriculturist, was lately delivered at the meeting of the American Agricultural Association, in New York, by R. L. Pell.

Mr Pell rose and said: By analysis it is known that all cereal grains, cruciferous and leguminous plants, trees, and shrubs; require in the soil the same chemical substances, but in different quantities. These are eleven, viz: potash, soda, lime, magnesia, alumina, oxide of iron, oxide of manganese, silica, sulphuric acid, phosphoric acid, and phosphoric acid, and chlorine. If one be absent, the soil will not grow any cultivated plant. Hence analysis of soils is necessary for a proper and economical application of manure. In a barren soil one necessary ingredient alone might be absent. If, then, ten ingredients be added and the eleventh kept back, the soil is still barren. Hence the reason why so much of New York will not grow wheat, and yet will grow other grain; the requisite quantity of some one or more chemical ingredients necessary for wheat is absent, but in sufficient quantity for rye, &c. When, at last, cultivated plants cease to grow, the five finger vine appears, as it requires still less of them. In such a state it is not rare that an expense of three dollars per acre will enable the soil to produce thirty bushels of wheat. I produced seventyeight and threequarter bushels of wheat on a piece of worn-out ground, by fifty cents worth of two ingredients. Like produces like; and hence if straw of wheat be given to the ground it will produce wheat; indeed, wheat may be grown on a pane of glass, if the seed be covered with wheat straw in a decomposing state. Hence the farmer may sell the grain but not the straw. The farmer who sells straw becomes poor, he who buys it grows rich.

I apply straw to the cattle yard; it absorbs the liquid excrement, and rots. What is long, or partly unrotted, I apply to hoed crops; what is fine I mix with the eleven requisites and apply as a top dressing. It may be advisable to apply the straw to the ground and plow it in when unrotted. To grow grains, give the soil straw of its kind; for potatoes, their vines; grapes, their vines; to apples, their branches, and so of all. The droppings of cattle are the best manure to grow grasses, as they feed on grass; those of horses fed on grain, for the growth of cereals. Onions are grown year after year, by only returning the tops to the ground. In Virginia, had the refuse of the tobacco plant been returned to the soil, she would not now be barren. The bad farmer is injured by the vicinity of well-manured land, as manure has an affinity for oxygen, hydrogen, ammonia, &c., floating in the air, and attracts them to the provident farmer's land.

Formerly, I applied composts of various things, and had wonderful results. I dared not omit any one, as I knew not which had produced the result. Now, science, by analysis, shows what is necessary. By these composts I grow a squash to weigh two hundred and one pounds, the heaviest on record; and a cabbage to weigh fortyfour pounds. By it I grew wheat to weigh sixtyfour pounds, rye sixty pounds, oats fortyfour and a half pounds. When Sprengel made known his annlysis, showing that eleven substances are necessary to all good soils, I found that my compost by chance had them all, and twenty other enriching ingredients.

Previous to 1840, my orchards bore only every other year. Since then I make them bear every year, and this year, (a bad one for fruit,) found my manured trees full, and those not manured, barren. The drought of this year was fatal to fruit; yet my manured trees had abundant moisture and were fruitful. I prefer the manure of decayed vegetable matter to the excrements of cattle, as the material that makes and supports the animal has been extracted, and the excrement is not so rich on that account. If the vegetable matter be rotted and its ammonia fixed by charcoal dust, all the chemical substances are present. Thus rotted, vegetable matter is more beneficial than the dung of cattle, quantity and quantity alike.

A most valuable manure is the liquid remaining after the boiling of bones. It is very offensive unless disinfected. When hot it is not offensive, but becomes so when cold. It is a jelly when cold. By the application of charcoal dust to the hot liquid, the jelly when cold is not offensive. In this state it may be made into compost with other substances. In that condition it is a most valuable manure. At present large amounts of the liquid are thrown into rivers. I prevailed upon a grinder of bones to save his liquid by charcoal, and he now sells what formerly he hired carried away. I have used it with great advantage, both on arable and meadow land.

Charcoal is one of the most valuable manures. It is the most powerful absorbent known. It takes from the atmosphere oxygen, hydrogen, nitrogen, ammonia, &c., and holds them while the weather, is dry. During rain it absorbs eighty per cent. of water, and releases the gases to descend to the earth to fertilize it. When the weather becomes dry it parts with the water, and absorbs from the air the gases again. This it continues almost perpetually, and it is nearly indestructible. When applied to the earth, the trees, plants, and grasses are found to have it adhering to their roots ready to impart gases and moisture as wanted. Trees packed in it have remained green for eighty days, while others without have died in like circumstances. Hams and salt meats are preserved perfectly when packed in it. I preserved apples in perfect condition for one year in it. If spread over the compost heaps, bard yards, stable floors, in privies, it absorbs the ammonia, prevents offensive smells, and makes a valuable compost.

Ashes, applied to sandy soils, are valuable; and on some soils, leached are as good as unleached. I have known land too poor to grow eight bushels of corn, made to produce fortyfive bushels, by ashes. On sandy soils in grass, they will pay to apply to the acre 60 bushels broadcast. They give to the soil silicate of potash, which is needed to form stems of grass and grain. Muck is made valuable by ashes, when mixed in compost. They destroy the acidity, and fermentation follows.

Lime has been used by me to great advantage. I prefer oyster-shell lime, as it contains no magnesia, which most stone lime does. I put on barren, worn-out land, 300 bushels of oyster-shell lime to the acre, and it grew wheat weighing 64 lbs. per bushel. With the wheat I sowed one bushel of clover and half a bushel of timothy seed per acre, and the next year cut 2 1-2 tons, and the second year 3 tons of hay per acre. I have found it of great advantage in potato culture. They are mealy and fine, and do not rot after gathering, and have been free of rot in the ground.

Bone-dust I have used, and find it most valuable; for soils long cultivated, and destitute of the phosphate of lime, it is the most efficacious manure that can be used. There should be used from 12 to 20 bushels to the acre.

I have used guano successfully and unsuccessfully. Mixed with earth and applied to plants in close contact, it was injurious; applied in weak solution to grass and green-house plants, its effect was wonderful. In composts I have found it very effective.

Night-soil is one of the most valuable manures. In this country, as well as in England, great prejudice prevails against its use, in agriculture or gardening. For ages, it has been used in Asia, and particularly in China. In France, in Belgium, Bohemia, Saxony, all the German confederacy, and Sweden, its destruction or waste is prohibited by law. As manure, six loads of it have been found to produce 650 bushels of potatoes to the acre, while on the same ground, 120 loads of horse manure gave only 480 bushels.

In conclusion, I have to remark that the mainstay of the farmer is his barn-yard manure. Yet this varies in quality, according to the material of which it is made, and the manner of making. Thus the droppings of cattle fed on straw and turnips are far less valuable than those of cattle fed on hay and oil-cake; and it is economy to feed hay and oil-cake, rather than straw and turnips. So in manuring; that which is leached by rains and volatilized by the sun, is less valuable than the unleached and unsunned. But this is too extensive a subject to take up now, and is too well understood by good farmers, to need further illustration.

Double Culture.—There is nothing new in growing two crops together and at the same time; we have in our island (Guernsey,) followed that system with success, ever since I can remember, and that is upwards of thirty years. For instance, when we grow a parsnip crop, which we find advantageous as food for our milch cows, as it makes both milk and butter sweet and rich, we dibble beans in double rows, the beans four inches apart, with an interval of six or eight feet to the next rows, after which we sow the parsnip seed, harrow it, &c., and we generally reap a good crop of each. The crop of beans does not seem to injure in the least the parsnip crop. We generally grow beans with our spring and late cabbage crops. We often follow the same system with our crop of potatoes—dibbling the beans between the sets in every third row of potatoes. The beans seem to thrive amazingly by this manner of planting, and the main crop is not in the least injured by them—and the farmer is greatly benefited, in having at the same time an underground and top crop.—*London Ag. Gaz.*

Early Rising.—The difference between rising every morning at six and at eight, in the course of forty years, amounts to 20,000 hours, or 8 years, 121 days and 10 hours, which will afford eight hours a day for exactly ten years; so that it is the same as if ten years were added to a man's life, in which he could command eight hours each day for the cultivation of his mind, &c.

A Real Gentleman.—He never dresses in the extreme of fashion; he is courteous to the poor as to the rich; avoids insulting any one; detests eavesdropping and double-dealing; never speaks ill of woman—and if he subscribes to a paper, punctually pays for it.

For the N. E. Farmer.

A CHAPTER ON LIME.

Mr Breck—I forward you the following chapter on lime, thinking it may serve to give *some* of your readers more definite ideas of the several compounds of lime.

Lime as taken from the quarry, is called carbonate of lime, limestone, marble. If pure, it consists of about 44 per cent. of carbonic acid, and 56 per cent. of lime. When the limestone is subjected to the intense heat of a lime-kiln, the acid is driven off, and the hundred pounds of limestone put in the kiln, comes out but 56 pounds of burnt, caustic, or quick lime. (The fact of this difference of weight between the burnt and unburnt lime, is something of an object, where it has to be carted some distance.) If the burnt or quick lime is left exposed to the air, it gradually imbibes from it carbonic acid and moisture, and the lumps crumble, or slake into a powder: it is then termed air-slacked, or effete lime, and will, in time, by the absorption of carbonic acid, become, chemically, or nearly so, what it was before being burned—that is, carbonate of lime.

If water is thrown upon the newly burned lime, it readily slakes into a fine powder, and it is then termed water-slacked, or hydrate of lime. In this process of slacking, it absorbs about 24 per cent. of water, which is chemically combined with the lime, and is in a much more solid state than ice, and can only be driven off by a strong heat; or by long exposure to the air, it is displaced by carbonic acid.

Sulphate of lime, gypsum, or plaster of Paris, is an abundant product of nature. When pure it is, in 100 pounds, composed of 46 per cent. of sulphuric acid, 33 per ct. of lime, and 21 per ct. of water. When gypsum is exposed to a red heat, the water is driven off, and then, strictly speaking, it is "plaster of Paris."

Phosphate of lime is a combination of phosphoric acid and lime, in the proportion of 54 1-2 of lime, and 45 1-2 of acid. It is not a very abundant product of nature, although it is found in small quantities in several different locations and countries. It has been said that it existed in large quantity in the province of Estremadura, in Spain.

From the similarity of its composition to bones, it has been thought that it might be imported into England, and in a finely powdered state, answer as a substitute for bones.

Within some two or three years, Dr. Daubeney, of England, has visited the above-named place, and ascertained there is but a small vein of the phosphate, some six or eight feet in thickness, and but a part of it pure phosphate of lime.

In England, there are some limestones, or rather strata in the limestone, that contain coprelitis, fragments of bones, teeth, &c., that contain a considerable amount of phosphate of lime, and it may in some measure answer as a substitute for bones, though I believe it has not been used to any great extent.

In regard to the value or use of lime for agricultural purposes, there seems to be a difference of opinion among writers upon the subject. Professor Johnston devotes some forty or fifty pages of his published lectures, delivered at Durham, in 1841, to the subject of lime in all its bearings; and from that time to the present, he is a strong advocate for its use, and is continually recommending the use of it to the farmers in Scotland and England. The English farmers have used it for improving their lands from time immemorial, and unquestionably with profitable results.

Mr E. Ruffin, of Virginia, who is well known as an able agricultural writer, on both sides of the Potomac, from the St. Lawrence to the Rio Grande, has spent years of unwearied study and practice, upon the use of lime and marl for manures, and his valuable Essay on Calcareous Manures, with Prof. Johnston's works, can be most profitably studied by farmers.

Lime and marl are used in vast quantities for improving the soil, and increasing the crops in Pennsylvania, New Jersey, and many of the Southern States. Mr Rives, of Virginia, stated in 1842, that he had used about 12,000 bushels of lime on about 150 acres of land. He says that he has not perceived that it much benefited the crop of corn or wheat that immediately succeeded the liming; but this, he says, "was more than compensated by the marked, unequivocal, and decided effect that I have never failed to perceive from lime *alone*, in the clover succeeding the wheat." "All my conclusions," says he, "in regard to lime, would lead me to the opinion that it is the *most permanent* of all manures."

Lime has been used in New England, sometimes with good results, at other times without any apparent effect. So with plaster of Paris, guano, and other substances. It has generally been supposed that lime would be a good application for the wheat crop, but it sometimes fails. In the N. E. Farmer of Oct. 10th, 1838, you, Mr Editor, gave us some account of the farm of the Hon. B. V. French, of Braintree, in which you state that "in his efforts to raise wheat the present season, he has had a complete failure, although a liberal application of *lime* and other manure was made, and the best variety of seed procured; yet he has the mortification, after his field exhibited the most flattering appearance, to see the whole of it blight and fail."

At one of the agricultural meetings at your State House, in February last, Mr French gave some account of his attempts to raise wheat, (as reported in the Boston Cultivator.) One year he failed in raising a crop of Black Sea wheat—destroyed by the rust. Upon a gravelly soil, he reaped a crop of 23 bushels to the acre. "He then consulted a chemist, who thought lime was wanting in his soil, and he recommended 160 *casks* to the acre. (That chemist was no dealer in homeopathic doses.) He did not apply so much, but limed liberally, and sowed two bushels to the acre; it grew well and was promising till the berry was about filling, when it blasted, and there was not a peck to the acre."

Perhaps if Mr French had plowed his land the previous autumn, and applied his lime then, the result would have been different—it would have had time, during the winter to have become carbonate of lime—and some of its alkali would have been dissolved, and rendered the silex in the soil soluble, so as to have given a stronger coating to the straw, and probably have prevented the rust. And applying newly slacked lime to highly manured land, has the effect of liberating the ammonia, and it flies off into the air and is lost to the farmer. If Mr F., after taking one or two crops of hay from this limed land, had then plowed it and sowed wheat, I think he would have obtained a good crop.

One of your correspondents, (over the signature of "Authentic,") who has recently through your columns, had a little sparring with "M. A.," of Pembroke, on the cultivation of wheat, recommends the application of ten casks of *air-slacked* lime (in Aug. or Sept.) per acre, for winter wheat. Where that amount of lime had been used, forty bushels of wheat per acre were harvested last year in Massachusetts.

There is no question but lime has frequently been misapplied and injudiciously used. Used in too large quantities, its effect would be to destroy for a while, all vegetation. Quick, or newly slacked lime upon highly or recently manured land, would drive off the ammonia. I have within the past year, been asked by more than a dozen farmers, how much lime they should mix to a cartload of *clear* manure. They have, somehow, got the idea that lime will add to the value of their clear manure—while the truth is, its application would very much lessen its value. Lime is valuable mixed with peat or swamp muck. If the peat or muck contain sulphate of iron, or alumina, it will decompose it, and the lime will become gypsum, or plaster of Paris, and the acidity of the muck neutralized and converted into good manure.

Where lime is as dear as it is here—from $1 50 to $1 75 per cask, I do not think it would be good economy for farmers to purchase it to spread broadcast upon their lands; but for *composting* with manure and muck, to be used on soils containing salts of iron, either the sulphate or oxide of iron, from my own experience I am satisfied of its economy, even at the prices named. Where I applied a limed compost six years ago, the land has produced nearly double the amount of several kinds of crops that the same kind of land has that had an equal amount of clear manure. Of its durability, I am of the opinion of Mr Rives.

Since writing the foregoing some weeks ago, I have received a file of the London Gardeners' Chronicle, for March and April. In the No. of April 4th, there is a report of an experiment of "Spanish Phosphorite," or the phosphate of lime mentioned in this article. The experiments with the phosphate of lime, in comparison with several other manures, was made by or under the direction of Prof. Daubeny.

The experiments with 12 kinds of manures, were made upon an exhausted piece of land. There were 13 plots of ground.

	Lbs of roots.
No. 1, without manure, produced	14,298
" 2, shavings of bones, 10 cwt to an acre,	19,239
" 4, nitrate of soda, 1 1-2 cwt. " "	28,459
" 5, Spanish phosphorite alone, 12 cwt.	28,639
" 6, Spanish phosphorite, with sulphuric acid, 12 cwt. per acre,	30,869
" 7, S. American guano, 260 lbs. per ac.	31,114
" 8, bones with sulphuric acid, 11 cwt.	31,898
" 11, bones finely powdered, 12 cwt.	36,185
" 13, stable dung, 22 tons to the acre,	39,476

Prof. Daubeny says: "as the Spanish phosphorite, which appears to act so beneficially, is wholly destitute of organic matter, it seems to follow that the more valuable portion at least of what is applied to the land, when bones are scattered over it, is the *phosphate of lime*, and not, as some have supposed, the oil or gelatine."

I did not think it worth the while to copy all his table of manures, as my object was to show the effect of the *natural* phosphate of lime.

The same paper also contains an article on the application of lime to the land in autumn, copied from the Farmers' Gazette, in which the writer argues that lime applied in the autumn at the rate of 240 bushels of slacked to the acre, will all be dissolved out of the soil by April. The writer says:

"Now, suppose this ample dose is, at a heavy expense, laid on by the 5th of October, and the field has a moderate slope; it is all, or nearly all, dissolved, and washed out of the soil by the rain, before the 15th of the next April! No lime remains but any little that was spread in lumps. It is all gone to the nearest stream, before I get a single crop off it. Is this good economy?"

If that is the fact, I do not think it is good economy; but his statement is in direct opposition to Mr Rives's opinion, contrary to my experience, and probably to that of thousands of others who have used lime. I do not know but the rain water of Scotland (where the writer resides,) has greater solvent powers than our Yankee rain water; here it takes about 800 pounds of water to dissolve one of lime.

A week or two since, I received from the author, Hon. J. H. Hammond, of Silver Bluff, South Carolina, a printed copy of a letter he addressed to the Agricultural Society of Jefferson County, Ga., written by the request of said Society, on the use and application of "shell marl."

Gov. Hammond has used marl (about 60 per ct. of it is carbonate of lime,) for a number of years on his plantation, with good results. He says:

"I cannot give you a better evidence of the firmness of my faith in the virtue of marl, than to state, that notwithstanding the discouragements of the last three extraordinary seasons, I have, at great expense, brought up from Shell Bluff, within four years, over 300,000 bushels, carted it out, and spread it over about 2300 acres of land, and am at this moment as actively engaged at it as ever. Nor do I look forward to a period when I expect to cease using it to a considerable extent every year, either on fresh lands, or increasing the dose on those already marled."

The length of this communication prevents my making more extracts from this valuable pamphlet, except one relating to gypsum. Mr H. says:

"Sulphuric acid itself is often used as a manure, but experience has fully established the fact, that it is of little value except on calcareous soils; and what is more remarkable, that sulphate of lime will also act with far greater effect on limed land. I tried some of it myself the past year, on marled land. I rolled the cotton-seed in it, previously to planting them, and thus applied it at the rate of only one peck of the plaster per acre. I am satisfied that the product on the few acres to which it was applied, was one-third greater than on similar adjoining land, marled also, but not plastured."

He adds, in a written note to me—"These acres, the plastered and unplastered, received equally about 30 bushels of lime per acre, last spring. Is it possible that the *three* quarts of additional *lime* in the peck of gypsum could have made a difference of 33 per cent. or *any* difference, in the produce. I was struck with the absurdity of Boussingault's theory, and mentioned it, last summer, to Mr Allen, of the American Agriculturist, New York, who replied that it must be a *misprint*. I thought of writing something about it, and was glad to see your article."

The article here referred to, by Mr Hammond, I suppose was a communication of mine published in the N. E. Farmer, of Oct. 22d, 1845, in which I attempted to show that M. Boussingault was wrong in his assertion that the application of gypsum was but an indirect way of *liming* land; and further inquiries, since then, have only more strongly confirmed me in the opinions I then advanced. M. Boussingault deservedly stands high as a scientific and practical farmer, and in charity I should hope that Mr Allen was right in his conjecture that the assertion above mentioned is a *misprint*, or that it was a mistranslation. L. BARTLETT.

Warner, N. H., May 28th, 1846.

TABULAR ESTIMATE

Of the Amount of Wheat and Indian Corn raised in the different States and Territories, for 1845.

State or Territory.	*Bush. Wheat.*	*Bush. Corn.*
Maine,	502,000	1,912,000
New Hampshire,	647,000	1,828,000
Massachusetts,	241,000	3,198,000
Rhode Island,	5,000	731,000
Connecticut,	114,000	2,649,000
Vermont,	854,000	1,728,000
New York,	16,200,000	13,250,000
New Jersey,	1,050,000	7,314,000
Pennsylvania,	12,580,000	17,126,000
Delaware,	440,000	2,713,000
Maryland,	4,884,000	3,723,000
Virginia,	11,885,000	27,272,000
North Carolina,	1,969,000	14,887,000
South Carolina,	1,168,000	8,184,000
Georgia,	1,571,000	13,320,000
Alabama,	980,000	16,650,000
Mississippi,	378,000	2,167,000
Louisiana,		8,360,000
Tennessee,	8,340,000	70,265,000
Kentucky,	4,769,000	54,625,000
Ohio,	13,572,000	57,600,000
Indiana,	7,044,000	30,625,000
Illinois,	4,563,000	25,584,000
Missouri,	1,525,000	15,625,000
Arkansas,	2,427,000	8,250,000
Michigan,	7,061,000	4,945,900
Florida,		733,000
Wisconsin Ter.	971,000	672,000
Iowa Ter.	793,000	2,028,000
Dist. Columbia,	15,000	35,000
Total,	106,548,000	417,899,000

Oats.	
Maine,	1,564.000 bu.
New Hampshire,	1,942,000
Massachusetts,	1,856,000
Rhode Island,	200,000
Connecticut,	1,646,000
Vermont,	3,593,000
New York,	23,700,000
New Jersey,	4,912,000
Pennsylvania,	19,826,000
Delaware,	828,000
Maryland,	1,691,000
Virginia,	8,888,000
North Carolina,	2,673,000
South Carolina,	700,000
Georgia,	833,000
Alabama,	1,527,000
Mississippi,	1,189,000
Tennessee,	8,625,000
Kentucky,	13,091,000
Ohio,	24,447,000
Indiana,	13,902,000
Illinois,	12,957,000
Missouri,	5,466,000
Arkansas,	436,000
Michigan,	4,815,000
Florida,	8,000
Wisconsin Ter.	1,200,000
Iowa Ter.	681,000
Dist. Columbia,	12,000
	163,208,000

In presenting the foregoing tabular estimate, (says the Commissioner of Patents,) it may be proper, to prevent mistakes, to repeat what has been stated in the former reports of this office, that no claim is laid to complete accuracy. All that has been attempted has been merely to furnish an approximation, which, although in particulars sometimes rising above, and at others falling short of the actual state of the crops, might still serve, in general, for want of better materials, the purpose of comparison, and form some basis for calculations, in gross, respecting the agricultural resources of our country. To hope to accomplish anything beyond this, with the means at command at present, would be a vain undertaking. Yet it is believed that the grounds on which the estimate is made, with a readiness at all times to correct errors, and an increasing preparation of experience in the use of the materials, will aid essentially in giving more reliable accuracy.

Export of Bread Stuffs.—It is altogether unexampled that such immense shipments of bread-stuffs should have been made from this country during the last six months, and yet the price so slightly affected at home. We know not how to account for it, except on the confidence which the dealers and growers have in the capacity of the country to increase its supply from the next crops. From New York alone, during the last six months, there have been exported to foreign countries,

Bbls. Flour,	460,101
Bush. Wheat,	380,432
Bush. Corn,	544,614
Bush. Rye,	175,140
Bush. Barley,	99,324
Tierces of Rice,	17,263

Besides this, great quantities have been shipped from New Orleans, Baltimore, Richmond, Philadelphia, Alexandria—and even from Boston, 850,000 bbls. Flour have been shipped.—*Newburyport Herald.*

Water for Sheep.—Water is not deemed so absolutely necessary for sheep as for other domestic animals, since their instinct leads them to graze early in the morning, when the dew is on, and again for a while in the evening, when the temperature of the season is warmest. In the hot month of August, however, when the feed is less succulent, they appear eager for water, and should be gratified with it if possible. But the lambs, when suckling, will do better if the mothers have access to it at all times. Therefore, since every pasture is not supplied with water, those that do contain it should be appropriated to the breed ewes. It should be considered that the milk secretions cannot be so abundant, if the ewe suffers from thirst.—*Morrell's Amer. Shepherd.*

Mutton.—We mean to repeat a thousand times or at least till what we say has some effect upon our countrymen, that a pound of lean, tender, juicy mutton can be produced for half the cost of the same quantity of fat pork; that it is infinitely healthier food, especially in the summer season; is more agreeable to the palate, when one gets accustomed to it; and that those who eat it, become more muscular, and can do more work with greater ease to themselves, than those who eat fat pork. We know nothing more delicious than smoked mutton hams of the Southdown breed of sheep: venison itself is not superior.—*Amer. Agriculturist.*

NEW ENGLAND FARMER,
AND HORTICULTURAL REGISTER.

Edited by Joseph Breck.

Boston, Wednesday, June 17, 1846.

THE NEW ENGLAND FARMER TO BE DISCONTINUED.

We announce to the subscribers of the *New England Farmer*, that its publication will be discontinued at the close of the present volume.

It is not necessary for us to state the reasons which have induced us to do this, farther than that the measure is for our interest, and at the same time will not be of disadvantage to the present subscribers. We have entered into an agreement with Luther Tucker, Esq., proprietor and editor of the Albany Cultivator, to act as agents for his proposed new work, "The Horticulturist," to be edited by A. J. Downing, Esq., and issued monthly: also, as agents for "The Cultivator," a work too well known to need any commendation.

The Horticulturist will be published simultaneously at Boston and Albany. Subscribers will be supplied with that journal at $3 per annum, or with the Cultivator at $1. As the two periodicals will be distinct in their character, we hope to have the pleasure of enrolling the names of all the patrons of the old New England Farmer, on the subscription list of each journal.

To those who have paid in advance, (not a very large class,) we will credit the amount paid to either of the above named works, or refund the money, as may be most acceptable. Those who have paid to Jan. 1st, 1847, will be entitled to one volume of the Cultivator from Jan. 1st, 1846.

It is desirable that we should be informed of the wishes of our present subscribers as early as possible. Those who propose to take either work, will please send us their names without delay.

Sub-agents in all the principal places in New England, will be appointed to receive subscriptions, to whom the works will be sent without expense of transportation, and the usual commissions allowed.

For further particulars, see the Prospectus.

JOS. BRECK & Co.

Boston, June 16, 1846.

PROSPECTUS OF "THE HORTICULTURIST;

And Journal of Rural Art and Rural Taste.

By A. J. Downing,

Author of "Landscape Gardening," "Designs for Cottage Residences," "Fruits and Fruit Trees of America," etc. etc.

This magazine will be devoted mainly to Horticulture. Gardening, in a thoroughly *practical* as well as scientific sense, will be its leading object; and it is hoped, through its columns, not only to render simple and easy to the novice, the practical care of all that belongs to the garden, but also to disseminate in all parts of the country, a knowledge of all new and important discoveries in Horticulture.

Pomology—the description and cultivation of Fruits and Fruit Trees, in which we are already more interested than any other people—will be a topic continually discussed. Essays, hints, and designs on Ornamental or Landscape Gardening, will be frequently presented to its readers. The great interest manifested at this moment in many of the States, in the embellishment of grounds and the erection of ornamental dwellings, points out the necessity of some periodical in which these subjects shall be more completely illustrated from time to time. Rural Architecture—so closely allied in its nature—will therefore be embodied in the plan of this work, and Designs for Rural Cottages and Villas, Farm Houses, Gates, Lodges, Hot Houses, Vineries, &c. will very frequently be introduced into its pages.

Numerous correspondents, from among those of ability in the country, will place before its readers a variety of articles on all the most interesting subjects within its scope. A summary of Horticultural news from the leading horticultural journals in England, France and Germany, will be given monthly. The official reports and transactions of the Massachusetts Horticultural Society, will be regularly published, as well as notices of all the more important proceedings of the principal Horticultural Societies of this country.

The services of Joseph Breck, of Boston, have been secured, who will correspond from that city, and furnish all local intelligence of interest, relative to Horticulture.

In short, this periodical may be considered a continuation of the various works on rural subjects, by its editor, which have already been so favorably received by the public. It is now his object to assist, as far as possible, in giving additional impulse to the progress of Horticulture and the tasteful in Rural Life, subjects which are now so largely occupying all those interested in country life.

The Horticulturist will be issued on the first of each month, (commencing July, 1846,) in numbers of 48 pages, printed on fine paper, and embellished with numerous engravings, illustrative of the various subjects to which it is devoted, making an annual volume of about 600 pages, at $3 a year, payable in advance.

Published simultaneously by Luther Tucker, at the office of the Cultivator, Albany, and by Joseph Breck & Co., at Nos. 51 and 52 N. Market street, Boston.

Letters on business should be addressed to Luther Tucker, Albany, except such as refer to the agency of Joseph Breck & Co. Letters and communications for the Editor, should be addressed to A. J. Downing, Ed. Horticulturist, Newburgh, N. Y.

CULTURE OF THE CORN CROP.

There are three points pertaining to the management of growing corn, upon which able writers generally agree, viz: 1st, that the old practice of hilling, is of no utility. 2d, that the ground should be frequently stirred, without injuring the roots. 3d, that for this purpose, the cultivator or harrow is preferable to the common plow.

These constitute our own rules, in dressing the corn crop, and having followed them with good success, we have no hesitation in recommending them to others.

The following remarks, copied from the Albany Cultivator, appear to us sound and judicious:

"*Culture of Corn while Growing.*—The first object should be to keep the ground light and the crop free of weeds. On light soils, the harrow and cultivator may accomplish this without much aid from the hoe; but operations must be commenced with one of these implements, (the harrow is perhaps preferable at first,) as soon as the corn appears above ground; and this should be so frequently repeated as not to allow time for the weeds to start.

On soils which have a tendency to become too compact, tools must be used which will penetrate the ground to a considerable depth. It is the class of soils which bake under the action of the sun, that suffer most from drought, and the crop can in no way be so well protected against injury from this cause, as by frequent stirring and loosening the soil, by which the tendency to become too solid, is counteracted. An implement with teeth like a plow-coulter, two or three in a frame, answers this purpose well. While the corn is small, it may be run very close to the stalks, without injury; but as the size of the plant increases, and the roots extend, the implement must not run so near. In some sections, what is called a shovel plow is used, and when properly made, it is an excellent tool.

For any ground on which it is proper to raise Indian corn, level cultivation is decidedly preferable. It exposes less surface to be dried by the sun and air, more readily receives and retains moisture, permits the extension of the roots over the whole soil, by which the plant is better nourished and better strengthened against the force of winds."

MASS. HORTICULTURAL SOCIETY.

EXHIBITION OF FRUIT.

Saturday, June 13, 1846.

J. L. L. F. Warren, of Brighton, presented several dishes and boxes of fine Strawberries, viz: Bishop's Orange, Early Virginia, Hudson, Jenney's Seedling, Willey's Seedling, Hovey's Seedling, and Mottier's Seedling.

By Isaac Fay, of Cambridgeport, Hovey's Seedling, and a Seedling raised by Mr Fay, of large size and fine appearance.

From A. Aspinwall, a basket of extra large Hovey's Seedling Strawberries.

[By F. W. Macondry, a dwarf Apple-tree, bearing on its branches 28 apples, about half grown.]

Two boxes of Strawberries, by Parker Barnes. We should like to taste other specimens of this variety, as we so far think well of it.

Three boxes of Hovey's Seedlings, and two of Virginia Strawberries, by John Gordon, of Brighton.

Josiah Richardson, of Cambridgeport, three Seedlings, all of good size, and a box of Hovey's Seedling Strawberries.

From Hovey & Co, specimens of Hovey's Seedling and Boston Pine Strawberries.

John F. Allen, of Salem, presented the following varieties of Grapes, viz: White Cluster, Black Hamburg, (fine,) Muscat of Alexandria, Early Black July, Chasselas de Bar Sur Aube, Grizzly Frontignan, White do., and Black Portugal. Also, some very fine Figs, Peaches, and Nectarines.

The exhibition of fruit today, was very creditable to the cultivators. The seedling specimens by Messrs. Fay and Richardson, are a proof of the interest taken in the country to produce something of the best quality.

For the Committee,

S. Walker, *Chairman.*

Vegetables.—From F. W. Macondry, Prince Albert Peas.

From John Gordon, a fine Cucumber.

From Josiah Bradley, ear of Egyptian corn.

From D. J. Curtis, Egyptian wheat.

For the Committee, A. D. Williams, Jr., *Chm'n.*

☞Notice.—Those who are indebted for one or more years' subscription to the Farmer, are respectfully reminded that the receipt of their several dues would be particularly acceptable to the Publishers, who will consider the prompt payment of the same as an evidence of both *honesty* and *sympathy*. The *individually little* debts against subscribers on our books, make, in the *aggregate*, a pretty large sum, which it vexes us to look upon, because, first, it is *justly due us*—secondly, we *ought to have it*—thirdly, we absolutely *want it*. Shall we have it? Let each say *yes*, and forthwith pay.

☞PUBLISHERS

Who exchange with us will please notice that the Farmer will be discontinued after the publication of one more number.

THERMOMETRICAL.

Reported for the New England Farmer.

Range of the Thermometer at the Garden of the proprietor of the New England Farmer, Brighton, Mass. in a shaded Northerly exposure, to the week ending June 14.

June, 1846.		7 A.M.	12, M	5, P M.	Wind.
Monday,	8	56	74	66	E.
Tuesday,	9	54	72	65	E.
Wednesday,	10	54	81	66	S.
Thursday,	11	59	85	65	N. E.
Friday,	12	59	64	60	S. E.
Saturday,	13	46	68	61	E.
Sunday,	14	52	80	79	E.

BRIGHTON MARKET.—Monday, June 15, 1846.

Reported for the N. E. Farmer.

At market 400 Beef Cattle, 12 pairs Working Oxen 15 Cows and Calves, 300 Sheep, and 1350 Swine. 47 Beef Cattle unsold.

Prices.—*Beef Cattle.*—Last week's prices for a like quality were hardly sustained; better Cattle were at market. We quote the same: Extra, $6,25. 1st quality $6,00. 2d quality $5,75. 3d quality $4,75 a 5,50.

Working Oxen.—Sales $70, $85, and 98.

Cows and Calves.—Sales $20, 22, 25, 29, and 33.

Sheep.—Sales from $2,00 to $2,75.

Swine.—Prices reduced. Shoats to peddle, 4 1-4 a 4 3-4 for Sows, and 5 1-4 a 5 3-4 for Barrows. Small Pigs, 6. Old Hogs, 4 1-2. At retail, from 5 to 7.

WHOLESALE PRICES CURRENT.

Corrected with great care, weekly.

SEEDS. Herds Grass, $0 00 a 2 50 per bushel. Red Top 65 to 70 cents. Clover—Northern, 11 to 11½c.—Southern, 10 a 00 c. Flax Seed. $1 50 per bushel. Lucerne, 33 c. per lb. Canary Seed. $2 25 a 2 50 per bushel. Millet, 1 75 to 2 00.

GRAIN. The Grain market has been unusually depressed, with large receipts of Corn, part of which has found buyers.

Corn—Northern. new, bushel 00 a 00—Southern, round yellow, 00 a 00—Southern flat yellow, 58 a 60—do. do. white 56 a 58—do New Orleans, 50 a 53—Barley 00 a 00—Rye, Northern, 72 a 75—do. Southern, 00 a 00—Oats Southern, 40 a 00—Northern do. 43 to 45—Beans, per bushel 1 00 a 1 37.—Shorts, per double bush. 37 a 40—Bran, 00 a 00.

FLOUR. The market closes with less anxiety on the part of holders to realize at present growing prices.

Baltimore, Howard Street, 4 mos. cr. new, $4 25 a 0 00—do. wharf, $4 12 a 0 00—do. free of garlic, $0 00 a 0 00—Philadelphia do. 4 mos. $4 27 a 0 00—Fredericksburg, low P'd new $4 12 a 0 00—Alexandria, wharf, 4 12 a 0 00—Georgetown, $4 25 a 4 31—Extra do. 0 00 a 0 00—Richmond Canal, $4 12 a 4 19—do. City, $0 00 a 0 00—Petersburgh, City, $0 00 a 0 00—do. Country $0 00 a 0 00—Genesee, common, cash, $4 29 a 4 31—do fancy brands, $4 75 a 5 75—Ohio via Canal, $0 00 a 0 00—do do New Orleans, cash $3 75 a 4 00. Rye, $3 50 a 3 75—Indian Meal in bbls. $3 00 a 3 25.

PROVISIONS. There have been sales of 1000 a 1500 brls. Pork, mostly Mess, to go out of the market.

Beef—Mess 4 no new bbl. $8 50 a 9 00—Navy—$7 50 a 0 00.—No. 1, $7 25 a 7 50—do Prime $5 75 a 6 00—Pork—Extra clear 4 mo. bbl. $12 00 a 12 50—do Clear $11 50 a 12 00 do. Mess, $10 00 a 10 50—do Prime $9 00 a 9 50—do Mess from other States,— a — —do Prime do do $0 00 a 0 00 do. Cargo do. 0 00 a 0 00 —Clear do do $00 00 a 00 00—Butter, ship'ng, 00 a 00—do store, uninspected, 8 a 10—do dairy, 15 cts. a 18—Lard, No. 1, Boston ins. 6¾ a 7—do South and Western, 6¼ a 7—Hams, Boston, 7 a 00—Southern and Western, 6¼ a 7—Cheese, Ship'g and 4 meal 4 a 6—do new milk, 7 a 9.

WOOL. Duty. The value whereof at the place of exportation shall not exceed 7 cts. per pound, 5 per cent. ad. val. All whereof the value exceeds 7 cts. per pound, 40 per ct. ad. val. and 3 cts per pound.

The demand for pulled and fleece Wool during the past week has been fair, without any material change in prices.

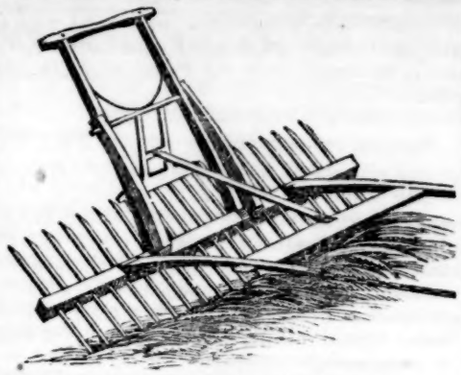
Prime or Saxony Fleeces, washed, lb. 38 a 40 c.—American full blood, do 35 a 37—Do. 3-4 do 30 a 32—Do. 1-2 do 28 a 30 -1-4 and common do 26 a 28 — Smyrna Sheep, washed, 18 a 20—Do. unwashed, 10 a 11 — Bengasi do 6 a 7—Saxony, clean, 12—Buenos Ayres unpicked, 7 a 10—do. do. picked, 10 a 13—Superfine Northern pulled lamb 32 a 33—No. 1 do. do. do. 27 a 30—No. 2 do do do 18 a 20—No. 3 do do do 14 a 16.

HOPS. Duty 20 per cent.

1st sort Mass. 1844, lb. 18 a 20 ; 2d do 00 a 00.

HAY. 20 to 00 per ton—Eastern Screwed $15 to 16.

EGGS, 12 to 13.



REVOLVING HORSE RAKE.

The Revolving Horse Rake has been in general use in most parts of Pennsylvania and New Jersey, and is found to be one of the most useful labor saving machines now in use. One man and horse, with a boy to lead, will rake on an average from 25 to 30 acres per day with ease, and do the work well. There is a great advantage in this rake over all others, as the person using it does not have to stop the horse to unload the rake.

For sale at Nos. 51 & 52 North Market Street, by
JOS. BRECK & CO.

HAY TOOLS.

The subscribers have received from the manufacturer a great assortment of the most approved *HAY TOOLS*—including

The celebrated Dunn's Scythes, of every variety and pattern,—warranted to be equal to any in the market. Should they prove bad they will be exchanged or the money refunded.

Clapp's and Aiken's Scythe Snaiths, of superior quality.

Hall's and Bowker's Hay Rakes, with other varieties.

Hay Forks, embracing every variety and form.

Austin's Rifles, the best article of the kind known.

Indian Pond and other Scythe Stones, wholessle and retail at the lowest prices. JOSEPH BBECK & CO
No. 51 & 52 N. Market street, up stairs.

Boston, June 9, 1846.

DAIRY UTENSILS.

Cheese Presses—Self-acting, Shaker, and other sorts.
Churns—Gault's Patent, and several other kinds.
Milk Pans—Lactometers.

For sale at the Agricultural Warehouse and Seed Store Nos. 51 and 52, North Market Street.
June 10. JOS. BRECK & CO.

ESSAY ON GUANO.

For sale at Nos. 51 and 52 North Market Street, Teschemacher's Essay on Guano,—describing its properties and the best methods of its application in Agriculture and Horticulture, with the value of importations from different localities; founded on actual analyses, and on personal experiments upon numerous kinds of trees, vegetables, flowers, &c. Price 25 cents. J. BRECK & CO.

GRINDSTONES ON FRICTION ROLLERS.

Grindstones of different sizes hung on friction rollers and moved with a foot treader, are found to be a great improvement on the old mode of hanging grindstones. Stones hung in this manner are becoming daily more in use and wherever used, give universal satisfaction. The rollers can be attached to stones hung in the common way. For sale by J. BRECK & Co. No. 51 North Market street.

SPRUCE POLES.

1000 dozen suitable for Rustic Fences;
1000 dozen Dahlia and Bean Poles;
2000 Spruce Poles 10 to 30 feet in length;

For sale by
MOSES FRENCH, jr. Maine Wharf,
Broad Street, near the bottom of Summer street.
March 29, 1846. 3m.

Guano! Guano!

The subscribers have for sale *GUANO*, of various qualities, from 37½ to $50 per ton, viz: 100 tons first quality of Peruvian, 100 do. do. do. Ichaboe, 100 do. second do. do.

JOSEPH BRECK & CO.,
N. E. Agricultural Warehouse and Seed Store, 51 and 52 North Market Street, (up stairs.) Boston.

CULTIVATORS.

The Cultivator is indisputably one of the most valuable implements of modern invention, and no farmer who appreciates the importance of stirring the earth about his growing crops, and studies economy in the mode of doing this, will be unprovided with a Cultivator.

This implement, of different forms and prices, is for sale at the New England Agricultural Warehouse and Seed Store 51 and 52 North Market Street.

June 10. JOSEPH BRECK & CO.

Howard's Improved Easy Draught Plows.

Great improvements have been made the past year in the form and workmanship of these Ploughs; the mould board has been so formed as to *lay the furrow completely over turning in every particle of grass or stubble, and leaving the ground in the best possible manner.* The length of the mould board has been very much increased, so that the Plough works with the greatest ease, both with respect to the holding and the team. The Committee at the late trial of Ploughs at Worcester, say,

"Should our opinion be asked as to which of the Ploughs we should prefer for use on a farm, we might perhaps say to the inquirer, if your land is mostly light and easy to work, try Prouty & Mears, but if your *land is heavy, hard orrocky,* begin with Mr. Howard's."

At the above mentioned trial the Howard Plough *did more work, with the same power of team, than any other plough exhibited.* No other turned more than twenty seven and one half inches, to the 112 lbs. draught, while the *Howard Plough turned twentynine and one half inches, to the same power of team!* All acknowledge that Howard's Ploughs are much the strongest and most substantially made.

There has been quite an improvement made on the shoe or land side of this Plough, which can be renewed without having to furnish a new landside; this shoe likewise secures the mould board and landside together, and strengthens the Plough very much.

The price of the Ploughs is from $6 to $15. A Plough sufficient for breaking up with four cattle, will cost about $10 50, and with cutter $1, with wheel and cutter, $2 50 extra.

The above Ploughs are for sale, wholesale and retail, a at the New England Agricultural Warehouse and Seed Store Nos. 51 & 52 North Market Street, by
JOSEPH BRECK & CO.

GRAIN CRADLES.

The Grain Cradle is an article which is coming into very general use in the New England States where they were till of late but little known, although they have been in very general use in the southern and western States, for many years, and which is found to be decidedly the best mode of harvesting grain, as it is supposed one man will cradle five acres in a day when he cannot reap more than one. The difference in gathering a crop is so much in favor of cradling, that we must suppose that it will be the only mode adopted hereafter, and the grain cradle will become of as much use as an implement of husbandry, as the plow now is.

There has been a very great improvement in the manufacturing of this article, they are now made on the most improved plan; the scythe is well secured and finished in a superior manner and made of the best cast steel.

OSEPH BRECK & CO.

TRACE CHAINS, &c.

Just received per ship "Sunbeam," from Liverpool, a large assortment of Fence, Trace, Halter and Dog CHAINS, of every description.

Also, per "Mary Ann," from Liverpool, a large assortment of splendid *GARDEN SHEARS, FLOWER GATHERERS, BRIAR HOOKS, NORWAY RAG STONES,* &c. and

For sale at the New England Agricultural Warehouse and Seed Store, by JOSEPH BRECK & CO,
March 18. No. 51 and 52 N. Market street.

SLAKED LIME.

50 casks for sale at a low price, by JOHN B. HATCH, wharf at foot of Tufts' street, near Chelsea Bridge, Charlestown. March 24.

HOES,

Of different patterns, for sale at the New England Agricultural Warehouse, 51 and 51 North Market street, by
April 1. JOSEPH BRECK & CO.

SAYLE'S GARDEN ENGINES.

A splendid article, will throw a constant stream of water to the distance of 50 to 60 feet, with great force, and in case of fire would be a substitute for a fire engine. The most perfect article for the purpose ever introduced.

MISCELLANEOUS.

Mexico.—The following extracts from the recently published work on Mexico, by Hon. Waddy Thompson, late U. S. Minister to that country, will be read with interest at the present time:

The Catholic Ritual maintains precedence among the Mexicans, in consistency with the natural proneness of every ignorant people to pay regard to external symbols and the outward pomps of religion. As to any rational idea of true religion, or any just conception of its divine author, the great mass of the people are little more enlightened than were their ancestors in the time of Montezuma, and their religion is very little less an idolatry than that of the grotesque images of stone and clay, of which it has taken the place. A productive source of revenue is the church; and it is stated that one-fourth of the property of the country is in the hands of the priesthood. "As a means of raising money," says Mr Thompson, "I would not give the single institution of '*masses*' and '*indulgences*' for the benefit of the souls of the dead, for the power of taxation possessed by any government. Of all the artifices of cunning and venality to extort money from credulous weakness, there is none so potential as a mass for the benefit of souls in purgatory. The Mexicans have a saint for all occasions, and by paying the priest something, his powerful aid is secured. They have a saint for horses, and on the festival of his birthday, horses are carried to the priest, and for a small sum, receive through him the saint's blessing—a perfect security against all the ills *horse*-flesh is heir to.

The clergy of Mexico, especially among the lower orders of priests and friars, are said to be vicious. Very many of them have several *nieces* in their houses, or females who *call them uncle*, and the author says that the injunction of celibacy among those dedicated to the priesthood, is, in Mexico, much more theoretically than *practically* regarded.

The streets of Mexico, the capital, divide the city into squares, each side of a square having a different name, sounding often to Protestant ears very much like a violation of the third article of the Decalogue—such as the "Street of Jesus," and the "Street of the Holy Ghost." A citizen will tell you that he lives in the Holy Ghost, or that he lives in Jesus—certainly, not always true, if taken in the sense in which *our* preachers use these words.

Should the churches of Mexico be ransacked for the means of carrying on the present war, they would supply almost incalculable wealth. The Cathedral of Mexico itself, which occupies the site of the idol temple of Montezuma, could furnish gold enough to support a powerful army. The altar itself is made of pure silver, ornamented with gold, and surmounted with images: these last and the railing are constructed of a compound of gold, silver, and copper—more valuable than silver. An offer was made recently to take this balustrade, and replace it with another of the same size and workmanship of pure silver and to give *a million of dollars besides!* The church also possesses immense endowments in gold and silver vases, waiters, candlesticks, precious stones, &c., the most valuable of which are stored away in chests and closets. The property which the church holds in mortmain, is estimated at fifty millions. As regards the ornaments of the churches, says Mr Thompson, it would be the wildest and most random conjecture to attempt an estimate of the amount of the precious metals withdrawn from the useful purposes of the arts and currency of the world, and wasted in decorations as incompatible with good taste as with that humility which was the most striking feature in the character of the Founder of our religion.

Every Man is Religious.—A clergyman was conversing with one of his parishioners on the importance of a due observance of the Sabbath, and was surprised to find that his views were readily assented to by his companion. "Why, friend Jones!" continued the parson, "I have been informed that you often drive your team, and even go a fishing and hunting on the Sabbath!" "True," replied Jones; "but then on such occasions I always whistle *psalm* tunes."

"No, Catharine," said Patrick to his wife, "you never catch a lie coming out of my mouth."

"True," replied Kate, "they fly out of your mouth so fast that nobody can catch 'em."

Pat *mizzled.*

SUPERB VARIETIES OF FLOWER SEEDS.

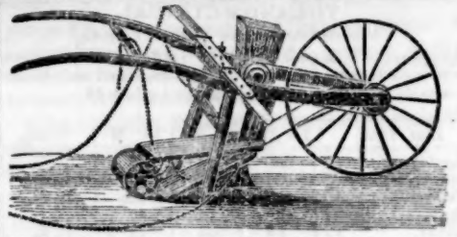
JOSEPH BRECK & CO. *Seedsmen and Florists*, No. 51 and 52 North Market street, (up stairs) have now received a full supply of fresh *FLOWER SEEDS* from the most celebrated Florists of Europe, from their own garden in Brighton and from other sources, of the most select varieties—ever offered in this country. Special attention has been given by the subscribers in long practice, in improving the numerous varieties of hardy Flowers, which have so long been the object of their cultivation and they feel assured that the seeds saved by themselves, cannot be surpassed by any other growers in the country.

Among some of the choice seeds are the following, viz:

Extra fine Verbena seeds, raised by an amateur in this country, from a bed of seedling, of 40 different varieties of every color and shade, price per package,	25
Extra fine Double Picotee and Carnation Pink seed, saved from a bed of 50 fine double varieties, (Breck & Co's. best.)	25
Extra Double Carnation seed from fine named Florists Flowers (imported,)	25
Extra double Picotee Pink seed from fine named double Flowers (imported)	25
Fine Carnation and Picotee Pink seed,	12½
Extra Double Florists Pink seed, from choice named Flowers (imported)	25
Double Chinese Imperial Pink seed, raised in this country from a bed of 50 or more fine varieties,	12
Phlox Drummondii, mixed colors, embracing scarlet, crimson, purple, rose, pink, and variegated varieties,	12½
Calceolarias, mixed varieties, from fine named sorts,	25
Pansy seed, from a collection of named sorts,	25
Geraniums, from a great variety of fine named sorts,	25
Petunia seed, from a great variety of fine mixed, variegated and other sorts,	12½
Double Hollyhock seed, in boxes containing sixteen dis inct varieties,	75
German Asters, of the most improved and splendid sorts, in boxes of 12 beautiful varieties,	75
Annual and perennial Lupins, in boxes, containing 16 distinct species and varieties, many of them most superb,	75
Goodetias and Œnotheras in boxes, 10 best varieties and species,	50
Russian and other ten week stock, 20 distinct varieties,	1,00
Ditto 10 ditto ditto	50
A collection of 20 best varieties of Annual Flower seeds,	1,00
Ditto 40 varieties of Annual and Perennial Flower seeds,	2,00
Boxes containing a choice collection of 100 varieties of Annual and Perennial Flower seeds,	4,00
Polyanthus seed from fine named sorts, per package,	25
Auricula ditto	25
Didiscus cœrulea,	12½
Brachycome Iberidifolia,	25
Mimulus—8 varieties,	75
Do. single paper,	12½
Double Balsams, 10 superb varieties,	62½
Four varieties fine Candytuft,	25
Six " sweet Peas,	37
Four " wall Flower,	25
Four " Schizanthus,	25

Also, other fine varieties, too numerous to mention, embracing a rare collection of more than 400 varieties. Catalogues may be had on application.

JOSEPH BRECK & CO.



WILLIS' LATEST IMPROVED SEED SOWER.

In using this machine, the farmer may be certain that his seed is put into the ground, and at the same time in the best possible manner. There has been a great difficulty in machines for sowing garden seeds; they are very apt to clog up, and the farmer might go over an acre of land and not sow a single seed; but not so with this; it is so constructed that it cannot possibly clog. In using this sower, the farmer can save one half of his seed, and do the work at less than one quarter the expense of the common way of sowing, and have it done in a much better manner; it opens the furrow, drops the seed, covers it over, and rolls them down. It will sow any kind of Garden Seeds; say Ruta Baga, Mangel Wurtzel, Turnips, Carrots, Beets, Parsnips, Onions, &c. For sale at the New England Agricultural Warehouse and Seed Store, Nos. 51 and 52 North Market street, by JOSEPH BRECK & CO.

HOWARD'S PREMIUM SUBSOIL PLOWS.

The sub-oil Plow is unquestionably the most important agricultural implement of modern invention. It is considered by the best informed practical farmers of Great Britain and our own country, as an indispensable article in the most profitable husbandry.

These Plows are for sale, wholesale and retail, by JOSEPH BRECK & CO.

N. E. Agricultural Warehouse and Seed Store, 51 & 52, North Market Street, Boston.

MARTIN'S MASSACHUSETTS PREMIUM EAGLE PLOWS.

The subscribers have for sale at their extensive Agricultural Warehouse, No. 51 & 52 N. Market street, *MARTIN'S MASSACHUSETTS PREMIUM IMPROVED EAGLE PLOWS.*

The principle of these Plows is such, from where the furrow-slice is received upon the mouldboard to where it leaves it, that it enables the Plow to take up the furrow-slice with the greatest possible ease, bearing equally and lightly over the whole surface of the mouldboard, turning it over with the least possible bending or twisting, and preserving it flat, smooth and unbroken, laying the furrow-slices closely and compactly side by side, and creating but slight friction upon the face of the mouldboard in passing through the soil. Thus the Plow requires but very little power of draft beyond what is necessary to cut out the furrow-slice.

Gentlemen are requested to call and examine these Plows before they purchase. JOSEPH BRECK & CO.

Boston, March 24.

BOUSSINGAULT'S RURAL ECONOMY.

Boussingault's Rural Economy; Price $1,75. Downing's Book of Fruits; price $1,75 Stable Keeper's Companion; price $1,00. Also, a general assortment of *AGRICULTURAL WORKS.* JOS. BRECK & CO.

HORTICULTURAL TOOLS.

A few cases of superior Horticultural Tools, for gentlemen or ladies' use For sale by JOS. BRECK & CO., 51 and 52 North Market Street.

NEW ENGLAND FARMER,

A WEEKLY PAPER.

Terms, $2 per year *in advance*, or $2 50 if not paid within sixty days.

Remittances, *not exceeding ten dollars*, at any *one time*, may be made as follows:—A subscriber owes us two or eight dollars, which he wishes to remit us. He will pay this amount to the Post Master *in his own town*, and take his *receipt* for it, as money paid him on *our* account. He will then send that *receipt*, enclosed in a letter *to us*. We pass it to the Post Master in Boston, and get the money for it. This arrangement does away with nearly the whole risk of making remittance, and puts every subscriber in possession of "suitable funds" for that purpose.

TUTTLE AND DENNETT, PRINTERS
21 SCHOOL STREET.